

1) a base sequence expressed by sequences designated in Sequence Nos. 1 to 7 of the sequence list;

2) a base sequence containing the base sequence of 1);

3) a base sequence that has at least about 50% of homology in sequence to the base sequence of 1) and that has a function for promoting a translation activity;

4) a complementary strand of the base sequences of 1) to 3);

5) a base sequence hybridizing with the base sequences of 1) to 4) under stringent conditions; and

6) a base sequence that has been mutated by deletion, substitution, addition, or insertion of one or more base(s) in the base sequences of 1) to 5) and that has a function for promoting a translation activity.

3. (Amended) A recombinant vector containing a polynucleotide that comprises at least one base sequence having an RNA higher-order structure having a function for promoting a translation activity which comprises a base sequence selected from the group consisting of:

1) a base sequence expressed by sequences designated in Sequence Nos. 1 to 7 of the sequence list;

2) a base sequence containing the base sequence of 1);

3) a base sequence that has at least about 50% of homology in sequence to the base sequence of 1) and that has a function for promoting a translation activity;

4) a complementary strand of the base sequences of 1) to 3);

5) a base sequence hybridizing with the base sequences of 1) to 4) under stringent conditions; and

6) a base sequence that has been mutated by deletion, substitution, addition, or insertion of one or more base(s) in the base sequences of 1) to 5) and that has a function for promoting a translation activity.

4. (Amended) A transformant that has been transformed with [the] a recombinant vector containing a polynucleotide that is made up of one or more base sequences having a higher order structure having a function for promoting a translation activity, the sequence including a base sequence selected from:

1) a base sequence expressed by sequences designated in Sequence Nos. 1 to 7 of the sequence list;

2) a base sequence containing the base sequence of 1);

3) a base sequence that has at least about 50% of homology in sequence to the base sequence of 1) and that has a function for promoting a translation activity;

4) a complementary strand of the base sequences of 1) to 3);

5) a base sequence hybridizing with the base sequences of 1) to 4) under stringent conditions; and

6) a base sequence that has been mutated by deletion, substitution, addition, or insertion of one or more base(s) in the base sequences of 1) to 5) and that has a function for promoting a translation activity.

5. (Amended) A method for synthesizing a heterologous protein or a heterologous polypeptide utilizing a polynucleotide that is made up of one or more base sequences having an

RNA higher-order structure having a function for promoting a translation activity, the base sequence including a base sequence selected from the group consisting of:

- 1) a base sequence expressed by sequences designated in Sequence Nos. 1 to 7 of the sequence list;
- 2) a base sequence containing the base sequence of 1);
- 3) a base sequence that has at least about 50% of homology in sequence to the base sequence of 1) and that has a function for promoting a translation activity;
- 4) a complementary strand of the base sequences of 1) to 3);
- 5) a base sequence hybridizing with the base sequences of 1) to 4) under stringent conditions; and
- 6) a base sequence that has been mutated by deletion, substitution, addition, or insertion of one or more base(s) in the base sequences of 1) to 5) and that has a function for promoting a translation activity.

6. (Amended) A method for synthesizing a heterologous protein or heterologous polypeptide utilizing a recombinant vector containing a polynucleotide that is made up of one or more base sequences having a higher-order structure having a function for promoting a translation activity, the sequence including a base sequence selected from:

- 1) a base sequence expressed by sequences designated in Sequence Nos. 1 to 7 of the sequence list;
- 2) a base sequence containing the base sequence of 1);
- 3) a base sequence that has at least about 50% of homology in sequence to the base sequence of 1) and that has a function for promoting a translation activity;

- 4) a complementary strand of the base sequences of 1) to 3);
- 5) a base sequence hybridizing with the base sequences of 1) to 4) under stringent conditions; and
- 6) a base sequence that has been mutated by deletion, substitution, addition, or insertion of one or more base(s) in the base sequences of 1) to 5) and that has a function for promoting a translation activity.

7. (Amended) A method for synthesizing a heterologous protein or a heterologous polypeptide in a cell-free protein synthesis system wherein, synthesis is carried out using a recombinant vector containing a polynucleotide that is made up of one or more base sequences having a higher-order structure having a function for promoting a translation activity, the sequence including a base sequence selected from:

- 1) a base sequence expressed by sequences designated in Sequence Nos. 1 to 7 of the sequence list;
- 2) a base sequence containing the base sequence of 1);
- 3) a base sequence that has at least about 50% of homology in sequence to the base sequence of 1) and that has a function for promoting a translation activity;
- 4) a complementary strand of the base sequences of 1) to 3);
- 5) a base sequence hybridizing with the base sequences of 1) to 4) under stringent conditions; and
- 6) a base sequence that has been mutated by deletion, substitution, addition, or insertion of one or more base(s) in the base sequences of 1) to 5) and that has a function for promoting a translation activity.

9. (Amended) The method for synthesizing a heterologous protein or a heterologous polypeptide according to claim 5, wherein the synthesis is carried out without using AUG translation initiation codon.

10. (Amended) A method for initiating synthesis of arbitrary heterologous protein or heterologous polypeptide from arbitrary codon which comprises the step of changing a combination of base pairs that make up PK (pseudoknot) I, II, and III structures in a RNA high-order structure having a function for promoting a translation activity, the sequence including a base sequence selected from:

- 1) a base sequence expressed by sequences designated in Sequence Nos. 1 to 7 of the sequence list;
- 2) a base sequence containing the base sequence of 1);
- 3) a base sequence that has at least about 50% of homology in sequence to the base sequence of 1) and that has a function for promoting a translation activity;
- 4) a complementary strand of the base sequences of 1) to 3);
- 5) a base sequence hybridizing with the base sequences of 1) to 4) under stringent conditions; and
- 6) a base sequence that has been mutated by deletion, substitution, addition, or insertion of one or more base(s) in the base sequences of 1) to 5) and that has a function for promoting a translation activity.

11. (Amended) The method for initiating the synthesis according to claim 10 wherein, one or more combination(s) of base pairs that make up PK I is changed, and a base pair

maintained in the changed higher-order structure is utilized for said initiating synthesis of said arbitrary heterologous protein or said heterologous polypeptide from said arbitrary codon.

Please add the following new claims:

--12. The transformant of claim 4 wherein, at least PK (pseudoknot) I, II, and III structures are maintained in the RNA higher-order structure.

13. The method for synthesizing a heterologous protein or a heterologous polypeptide of claim 6 wherein, at least PK (pseudoknot) I, II, and III structures are maintained in the RNA higher-order structure.

14. A method for synthesizing a heterologous protein or a heterologous polypeptide utilizing a transformant which has been transformed with a recombinant vector containing a polynucleotide that is made up of one or more base sequences having a higher-order structure having a function for promoting a translation activity, the sequence including a base sequence selected from:

1) a base sequence expressed by sequences designated in Sequence Nos. 1 to 7 of the sequence list;

2) a base sequence containing the base sequence of 1);

3) a base sequence that has at least about 50% of homology in sequence to the base sequence of 1) and that has a function for promoting a translation activity;

4) a complementary strand of the base sequences of 1) to 3);

5) a base sequence hybridizing with the base sequences of 1) to 4) under stringent conditions; and

6) a base sequence that has been mutated by deletion, substitution, addition, or insertion of one or more base(s) in the base sequences of 1) to 5) and that has a function for promoting a translation activity.

15. The method for synthesizing a heterologous protein or a heterologous polypeptide according to claim 6, wherein the synthesis is carried out without using AUG translation initiation codon.

16. The method for synthesizing a heterologous protein or a heterologous polypeptide according to claim 7, wherein the synthesis is carried out without using AUG translation initiation codon.

17. The method for synthesizing a heterologous protein or a heterologous polypeptide according to claim 8, wherein the synthesis is carried out without using AUG translation initiation codon.

18. The recombinant vector according to claim 3, wherein at least PK (pseudoknot) I, II, and III structures are maintained in the RNA higher-order structure.

19. The transformant according to claim 4, wherein at least PK (pseudoknot) I, II, and III structures are maintained in the RNA higher-order structure.--